Patent Claims

1. Method of producing a porous, plate-shaped metallic composite, according to which metallic fibers are compressed and fused together in a single step.

2. Method according to claim 1, characterized in that the metallic fibers are processed in the form of prefabricated metallic fiber mats.

3. Method according to claim 1, characterized in that the metallic fibers, which are derived from bulk material, are initially separated.

4. Method according to claim 1, 2 or 3, characterized in that both flat sides of the metallic composites are respectively fused with a wire mesh as a cover layer.

5. Method according to claim 1, 2, 3, or 4, characterized in that it is continuously carried out to form an endless metallic composite.

6. Method according to claims 1 to 5, characterized in that it is carried out in inert gas.

7. Method according to one of the preceding claims, characterized in that the metallic fibers are fused together via pulse fusing, preferably via capacitator pulse fusing.

8. Method according to one of the preceding claims, characterized in that the fusing process is carried out in less than 1s, preferably in less than 10 ms.

9. Method according to one of the preceding claims, characterized in that the metallic fibers are subjected to a pressure prior to or during the fusing process.

10. Method according to claim 9, characterized in that the pressure is produced with a pressing force of 0.1 N/mm^2 to 10 N/mm^2, preferably from 1.5 N/mm^2 to 6.0 N/mm^2

11. Sound-dampening panel, formed of a metallic fiber fleece, the metallic fibers of which are fused together, and which is disposed between two cover layers.

12. Sound-dampening panel according to claim 11, characterized in that the metallic fiber fleece is fused with the cover layers.

13. Sound-dampening panel according to claim 11 or 12, characterized in that the cover layers are formed of wire mesh.

14. Gas burner insert, formed of a metallic fiber fleece, the metallic fibers of which are fused together and which is disposed between two cover layers that are preferably formed of wire mesh,